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NF91-47 Micro-Fibers

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Micro-Fibers

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Imagine a fiber so fine and delicate that it's four times finer than wool, three times finer than cotton, twice as fine as the finest silk and one hundred times finer than human hair.

Micro-fibers, as they are called, measure less than one denier. The term denier measures the fineness of man-made fibers. Denier is the weight in grams of 9,000 meters of yarn which is equal to one denier. One to three denier refers to fine cotton or wool; five to eight denier is average cotton and wool; 10 to 15 denier corresponds to very fine nylon stockings.

Micro-denier fibers are finer than any fibers occurring in nature. These fibers are available in a range of deniers making it possible to produce a variety of fabric types and weights.

Micro-fibers are not a new idea. The Japanese developed micro-fiber yarn nearly 20 years ago. The most well known micro-fiber fabric today is Ultrasuede.

Micro-fiber Fibers

Micro-fibers are made from polyester, nylon, rayon and most recently acrylic. They also can be blended with other fibers including cotton, linen, wool, rayon and Lycra spandex. Blends enhance the appearance, hand, drape and performance properties of the fabric. At this time there are no regulations about the percent of micro necessary for using the term micro-fiber.

The fabric industry agrees that 35 to 40 percent is the minimum amount required to retain the desired hand and performances. Companies are concerned about small amounts being used in a fiber blend as an advertising hype and calling the product a "micro-fiber."

Micro-fibers can be woven or knitted into a variety of fabrics such as twill, satin, faille, crepe, taffeta and broadcloth.

Various finishes enhance the look and feel of micro-fibers. Peach skin provides a velvety hand, others have a silk, sand washed, or a leather look.

Characteristics of Micro-Fibers

- Strong and durable
- Lightweight and supple
- Good stability and shape retention
- Wrinkle resistant
- Washable and dries quickly
- Comfortable to wear as they are more porous
- Water repellent and wind resistant
- Doesn't water spot

Use of Micro-fibers

Because air passes easily through the fabric, moisture is wicked away from the skin's surface to the outer face of the fabric. This makes micro-fibers particularly desirable for outerwear and body wear. These fabrics can take on virtually any surface and texture quality. They can be sanded or sueded giving a lush velvety texture. End uses for micro-fiber fabrics include men's slacks and ties, women's silk-like blouses and dresses, hosiery, evening wear, tailored suits, children's wear, rain wear, intimate apparel and sheets and pillow cases. Luxurious upholstery fabrics are also getting the micro-fiber touch.

Fabrics made from these ultra-fine fibers can be produced from filament and staple yarns. Other applications include wiping cloths, high performance filters, artificial blood vessels, sanitary and towel products.

Micro-fiber Trade Names

Companies involved with producing micro-fibers are:

Company	*Trade Name*	*Fiber*
DuPont	Micromattique	polyester
	Microsupplex	nylon
	Microfine	nylon
BASF Fibers	(yet to be named)	rayon
	Silky Touch	nylon
Fiber Industries	MicroSpun	polyester
Hoechst Celanese	Finesse	polyester
	Micronese	polyester
Spring Industries	Ultra Fiber Fabrics	polyester
	Soffair	
	Sherice	
	Stanza	
	Vanessa	
	Reganza	
	Silkmore	
Cyanamid Co.	MicroSupreme	acrylic
Courtaulds Fibers	(yet to be named)	rayon

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